

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-55 (Canceled).

Claim 56 (New): An isolated nucleic acid molecule encoding a fusion protein comprising the amino acid sequence of SEQ ID NO: 1.

Claim 57 (New): An isolated vector comprising the nucleic acid molecule of claim 56.

Claim 58 (New): The isolated vector of claim 57, wherein said vector is a bacterial plasmid, a bacteriophage vector, a yeast episomal vector, an artificial chromosomal vector, or a viral vector.

Claim 59 (New): The isolated vector of claim 58, wherein said vector is a viral vector.

Claim 60 (New): The isolated vector of claim 59, wherein said viral vector is selected from the group consisting of baculoviral vectors, papoviral vectors, herpes viral vectors, adenoviral vectors, adenovirus-associated viral vectors, poxviral vectors, foamy viral vectors, and retroviral vectors.

Claim 61 (New): The isolated vector of claim 60, wherein said vector is an adenoviral vector.

Claim 62 (New): The isolated vector of claim 61, wherein said vector is an E1- and E3-deleted replication-defective adenoviral vector comprising an isolated nucleic acid

molecule encoding a fusion protein comprising the amino acid sequence of SEQ ID NO: 1 inserted in replacement of the E1 region and placed under the control of the CMV promoter.

Claim 63 (New): The isolated vector of claim 57, wherein said vector further comprises one or more transgenes encoding (i) a tumor proliferation inhibitor and/or (ii) at least one antigen.

Claim 64 (New): The isolated vector of claim 63, wherein said tumor proliferation inhibitor is a fusion protein which encodes a two domain enzyme possessing both CDase and UPRTase activities.

Claim 65 (New): The isolated vector of claim 63, wherein said antigen is a HPV antigen selected from the group consisting of E5, E6, E7, L1, and L2 either individually or in combination.

Claim 66 (New): The isolated vector of claim 65, wherein said HPV antigen is a membrane-anchored form of a non-oncogenic variant of the early HPV-16 E6 and/or E7 antigen.

Claim 67 (New): An isolated host cell comprising the nucleic acid molecule of claim 56.

Claim 68 (New): An isolated host cell comprising the vector of claim 57.

Claim 69 (New): A composition comprising the vector of claim 57 and a pharmaceutically acceptable vehicle.

Claim 70 (New): A composition comprising the host cell of claim 67 and a pharmaceutically acceptable vehicle.

Claim 71 (New): A composition comprising the host cell of claim 68 and a pharmaceutically acceptable vehicle.

Claim 72 (New): A method for producing a fusion protein, comprising the steps of:

- (a) introducing the vector of claim 57 into a suitable host cell to produce a transfected or infected host cell,
- (b) culturing *in-vitro* said transfected or infected host cell under conditions suitable for growth of the host cell,
- (c) recovering said fusion protein from the culture of said host cell, and
- (d) optionally purifying said recovered fusion protein.